

eyes and three pairs just in front of occipital carina; eyes  $83\mu$  long dorsally, 48 wide, 97 apart; mouth-cone short, its tip about  $100\mu$  beyond dorsal margin of head; antennae normal, segments III and IV narrowed apically and vasiform, I 25(26), II 49(31), III 76(26-27), IV 58(28), V 44(25), VI 31(23), VII 9(9-10), VIII 30(5-6), sense-cones on III and IV forked, outer arm of that on IV surpassing tip of V. PROTHORAX elliptical, nearly 1.5 times as wide as long, polygonally reticulate throughout, with pale setae, with complete lateral shelf which is broader anteriorly, and with a longitudinal median subcarina in front of posterior margin between the posterior pair of foveae. PTEROTHORAX much narrowed posteriorly, the width across base of segment II of abdomen ( $196\mu$ ) only 0.6 the greatest width of mesothorax ( $318\mu$ ); meso- and metanota normal, their reticles smooth, anterior sclerite of latter with the usual elevated triangular area, the posterior sclerite  $45 \times 137\mu$  and reticulate. FOREWINGS  $1110\mu$  long. ABDOMEN  $333\mu$  wide at segment IV, sculpture normal to genus, the median, elliptical, reticulated areas on terga II-VII with their lateral margins well differentiated by black lines which extend posteriorly beyond middle of terga; segment IX only slightly longer than X; seta I on IX  $86\mu$ , II 97, III 72, X with seta I 75, II 64.

FORMOSA: Yusho, near Piyanan, August 13, 1934, R. Takahashi, 4 ♀♀ (including holotype), from leaves of *Prunus* sp.

**HAEMAGOGUS LUCIFER H., D. & K., 1912, A SYNONYM OF  
HAEMAGOGUS REGALIS D. & K., 1906**

(DIPTERA, CULICIDAE)

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*Haemagogus regalis* Dyar and Knab, 1906 was described from specimens reared from larvae taken at Sonsonate, Salvador, by Frederick Knab. The original description follows: (1) "Proboscis long, black; head and thorax brilliant metallic blue and green; pleurae silvery; abdomen dark blue with silvery bands on all the segments above, broader below. Legs blue-black, the mid and hind femora white below towards base. Base of the first submarginal cell slightly nearer the base of wing than base of the second posterior cell. . . . Type. —Cat. No. 10,024, U. S. Nat. Mus." Later Dyar (2) stated that Sonsonate, Salvador should be considered the type locality.

*Haemagogus lucifer* Howard, Dyar and Knab 1912 was treated as *H. splendens* Will. in the four-volume monograph (3), but Dyar (2) states that the name "depends upon the

published figure'' of the male terminalia given on Plate II, Fig. 23, p. 164 (1912) of Vol. II of Howard, Dyar and Knab (3). Dyar states that this figure ''was made from a specimen from Tabernilla, Canal Zone, Panama (A. H. Jennings, breeding number 399), and this locality becomes the type locality [for *lucifer*].''

The writer has examined the male terminalia of *H. lucifer* on Slide No. 1461 in the U. S. National Museum collection, which was made from a male of the type series (Jennings No. 392, Tabernilla, Canal Zone, July 24, 1908), and finds that the terminalia of this specimen correspond in all particulars with the male terminalia on three slides (No. 1463, Knab 330 ze; Knab 330 zh (no slide number); and Knab 330 ze (no slide number), which are from the type series of *H. regalis* from Sonsonate, Salvador (Knab's breeding number 330). The terminalia of the type slide of *regalis* (No. 10,024, U.S.N.M.), which is numbered ''330 v, Knab's notes,'' are in poor condition, and were mounted in balsam in 1936, but what can be seen agrees with the terminalia on the three slides of the type series noted above.

The writer has many specimens of ''*H. lucifer*'' from Panama, of which he has dissected and mounted the male terminalia. These agree with those of the three slides of the type series of *H. regalis*, noted above.

Through the kindness of Dr. Alan Stone, of the Division of Insects of the U. S. National Museum, the writer was permitted to make photomicrographs of the terminalia of *H. lucifer*, from slide 1461, male from Tabernilla, Canal Zone, July 24, 1908 (Jennings 342), from the type series of *lucifer*; and of the terminalia of *H. regalis* from slide 1463, male from Sonsonate, Salvador [no date] (Knab 330 ze), from the type series of *regalis*.<sup>2</sup>

Examination of the photomicrographs will show that the parts numbered in the legends for Figure 1 (*lucifer*) agree in all particulars with those shown in Figure 2 (*regalis*); the parts of the terminalia of *lucifer* (Figure 3) correspond with those of *regalis*, shown in Figure 4. The shape of the claspette filament is well shown in Figure 4 of *regalis*.

#### LITERATURE CITED

1. Dyar, H. G., and Knab, F., 1906. Notes on some American mosquitoes with descriptions of new species. Proc. Biol. Soc. Wash., v. 19, p. 167.

<sup>2</sup>The writer acknowledges with thanks the skillful assistance of Mr. Vernon Taylor of the Photographic Section of the National Institutes of Health, who made the four photomicrographs reproduced here, and the gracious aid of Mrs. Frances Rose of the Medical Arts Section in numbering the parts of the terminalia in these photographs.

2. Dyar, H. G., 1921. The genus *Haemagogus* Williston. *Ins. Ins. Mens.*, v. 9, p. 101.
3. Howard, L. O., Dyar, H. G., and Knab, F., 1917. The mosquitoes of North and Central America and the West Indies. Carnegie Institution of Washington, Publ., 159, p. 865.



Fig. 1, *Haemagogus lucifer*. 1. Terminal spine of clasper; 2. Apical lobe of side piece; 3. Filament of claspette; 4. Median patch of scales on side piece; 5. Mesosome; 6. Basal lobe of side piece. Fig. 2, *Haemagogus regalis*. 1. Terminal spine of clasper; 2. Apical lobe of side piece; 3. Filament of claspette; 4. Median patch of scales on side piece; 5. Mesosome; 6. Basal lobe of side piece. Fig. 3, *Haemagogus lucifer*. 1. Mesosome; 2. Strong, short setae on 8th tergite. Fig. 4, *Haemagogus regalis*. 1. Filament of claspette; 2. Mesosome; 3. Strong short setae on 8th tergite.